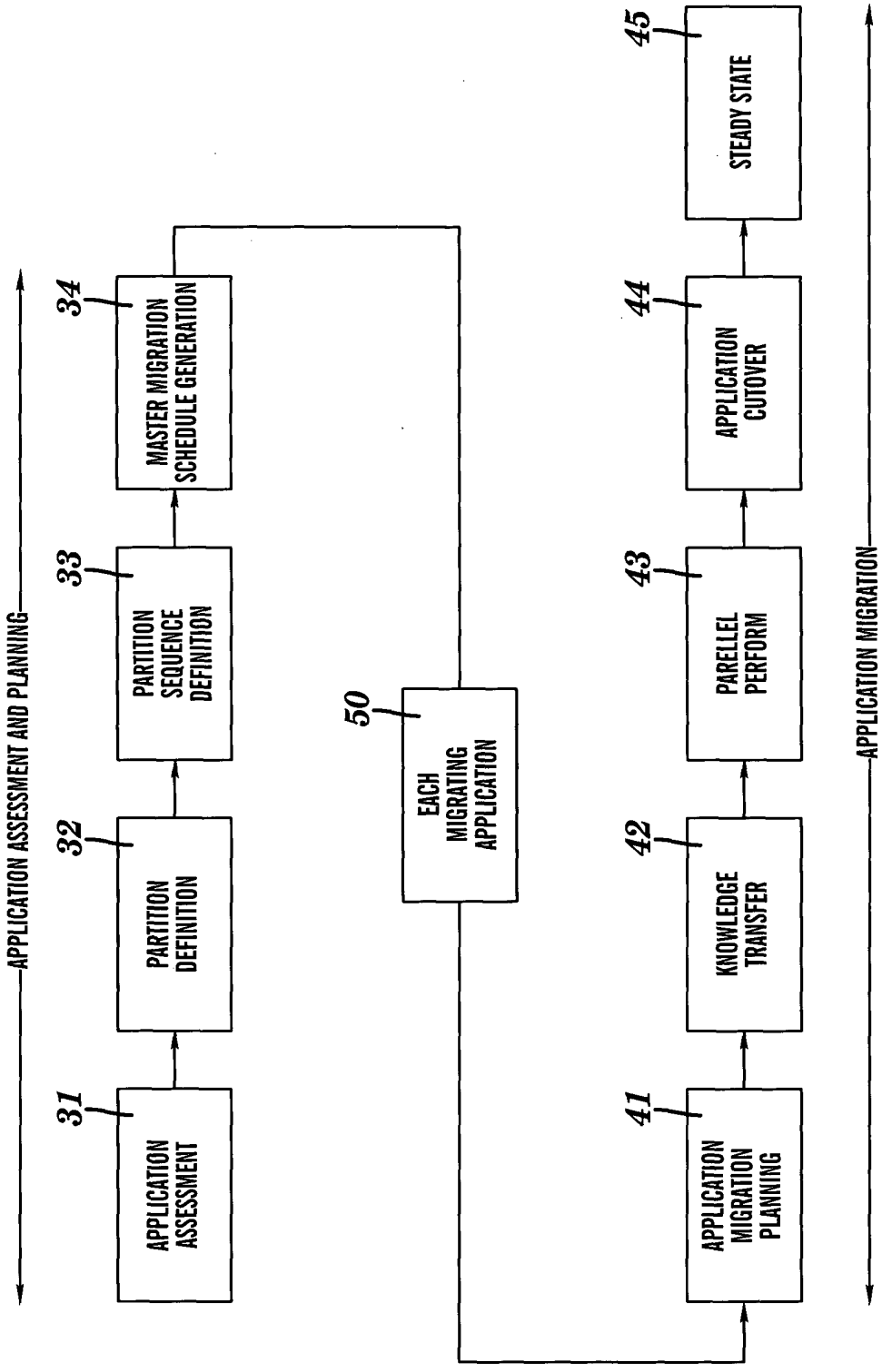
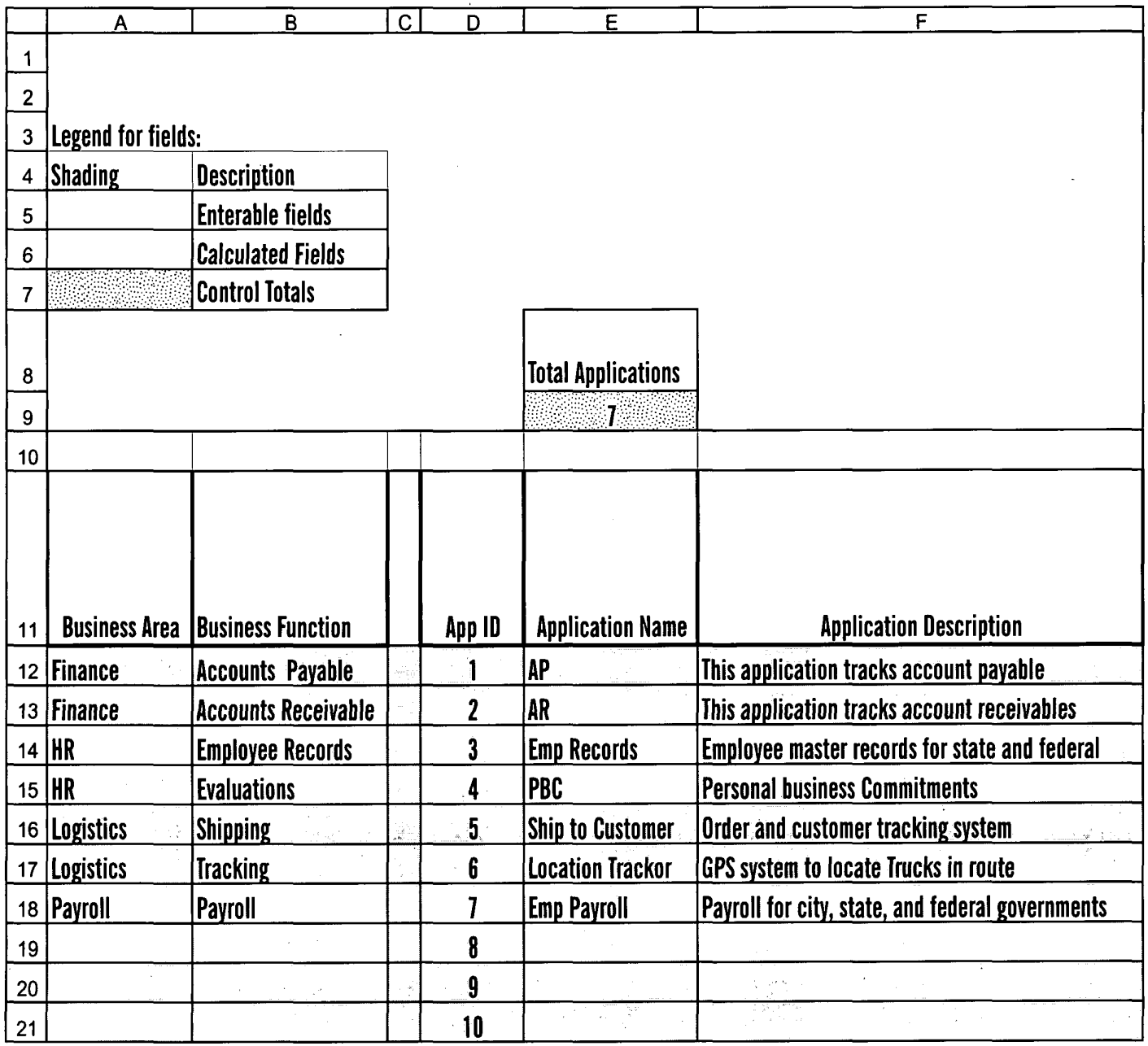

APPLICATION ASSESSMENT AND PLANNING
APPLICATION MIGRATION
31
APPLICATION ASSESSMENT
32
PARTITION DEFINITION
33
PARTITION SEQUENCE DEFINITION
34
MASTER MIGRATION SCHEDULE GENERATION
50
EACH MIGRATING APPLICATION
41
APPLICATION MIGRATION PLANNING
42
KNOWLEDGE TRANSFER
43
PARELLEL PERFORM
44
APPLICATION CUTOVER
45
STEADY STATE

FIG. 1



	A	B	C	D	E	F
1						
2						
3	Legend for fields:					
4	Shading	Description				
5		Enterable fields				
6		Calculated Fields				
7		Control Totals				
8					Total Applications	
9					7	
10						
11	Business Area	Business Function		App ID	Application Name	Application Description
12	Finance	Accounts Payable		1	AP	This application tracks account payable
13	Finance	Accounts Receivable		2	AR	This application tracks account receivables
14	HR	Employee Records		3	Emp Records	Employee master records for state and federal
15	HR	Evaluations		4	PBC	Personal business Commitments
16	Logistics	Shipping		5	Ship to Customer	Order and customer tracking system
17	Logistics	Tracking		6	Location Trackor	GPS system to locate Trucks in route
18	Payroll	Payroll		7	Emp Payroll	Payroll for city, state, and federal governments
19				8		
20				9		
21				10		

FIG. 2

	H	I	J	K	L	M	N	O	P	Q	R	S
1												
2												
3												
4												
5												
6												
7												
8												EOL #
9												24
10												
11	Hardware Platform	Software Platform	Database	Application Language	Package Flag (Y or N)	Package Vendor	Age of Application (years)		Number of Users Supported			Life Expectancy Months
12	IBM	AIX	DB/2	C++								45
13	IBM	AIX	DB/2	C++								45
14	Mainframe	MVS	vsam	COBOL								50
15	PC	Win 2000	Flatfile	C								25
16	IBM	AIX	DB/2	C/C++								66
17	Sun	Solaris	Flatfile	C								99
18	Mainframe	MVS	IMS	COBOL								99
19												
20												
21												

FIG. 3

	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1															
2															
3															
4															
5															
6															
7															
8						High Facing %									Total FTEs
9						65%									282
10										FTE ANALYSIS					
11	% of FTE doing Break/Fix	% of FTE doing Enhancements	% of FTE doing Ad Hoc Support	% of FTE doing Testing	% of FTE doing Rollout	% of FTE doing Customer Facing	% of FTE doing Project Management	% of FTE doing Development	% of Other Activities (i.e., DBA, BA, Training)	Total of %'s	Location (City, State, Province, Country)	Team Size (FTEs) +6 YRS EXP	Team Size (FTEs) 3-6 YRS EXP	Team Size (FTEs) 0-3 YRS EXP	Total FTEs (Auto-sum of 3 Team FTE columns)
12	10%	10%	10%	10%	10%	10%	10%	30%		100%	Key West, FL	55			55
13			40%		5%	6%	49%			100%	Key West, FL		4	23	27
14	30%	40%				10%		20%		100%	Key West, FL	77			77
15				70%		30%				100%	Key West, FL		33		33
16				60%					40%	100%	Key West, FL		20	10	30
17	100%									100%	Key West, FL	5	5	5	15
18	100%									100%	Key West, FL	40	2	3	45
19										0%					0
20										0%					0
21										0%					0

FIG. 4

	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT
1										
2										
3										
4										
5										
6										
7										
8										
9										
10	CRITICALITY						COMPLEXITY			
11	Business Criticality (1 to 5)	Operational Criticality (1 to 5) Interfaces		Code Complexity (1 to 5)	Data Complexity (1 to 5)	Business Complexity (1 to 5)	Problem Complexity (1 to 5)	Stability (1 to 5)	Application Complexity Score	Complexity Rating
12	4	3		5	3	2	3	1	14	3
13	4	3		5	2	2	3	1	13	3
14	4	3		3	3	2	3	1	12	3
15	4	3		3	2	2	3	1	11	3
16	3	3		2	1	2	3	1	9	2
17	2	3		1	1	2	3	1	8	2
18	5	5		2	5	2	3	5	17	4
19									Check Data	Check Data
20									Check Data	Check Data
21									Check Data	Check Data

FIG. 5

	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
1														
2														
3														
4														
5														
6														
7														
8														
9														
10								APPLICATION PROFILE						
11	Number of Concurrent Users	LOC or Modules	Number of Sev 1 reports per month	Number of Sev 2 reports per month	Number of Maj/Minor Releases per month	Maj/Minor Releases Effort (FTEs/Hours)	Level of Customization	Concurrent Users Score	LOC or Modules Score	Sev 1 Score	Sev 2 Score	Major/Minor Release Score	Application Profile Score	Application Profile Rating
12	99	500	10	50	2	100	3	3	1	1	2	1	11	2
13	20	10000	1	50	2	100	5	1	3	1	2	1	13	3
14	20	99999	10	5	2	300	3	1	4	1	1	1	11	2
15	50	500	10	200	2	100	3	3	1	1	4	1	13	3
16	200	500	10	5	2	300	3	4	1	1	1	1	11	2
17	20	500	10	500	55	100	5	1	1	1	4	2	14	3
18	300	200000	10	5	2	100	3	5	4	1	1	1	15	3
19								1	1	1	1	1	Check Data	Check Data
20								1	1	1	1	1	Check Data	Check Data
21								1	1	1	1	1	Check Data	Check Data

FIG. 6

	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV
1												
2												
3												
4												
5												
6												
7												
8	Documentation Score Weightings:						100%		Assessment Score Weightings:			100%
9	25%	15%	10%	5%	20%	15%	10%		35%	25%	30%	10%
10	Documentation (1 to 5)									RATINGS AS SCORES		
11	Functional Design	Detail Design	Int/Reg Test Plans	User Manuals	Installation Guide	Data Dictionary	Training Manuals		Business Criticality Score	Operational Criticality Score	Application Complexity Score	Application Profile Score
12	5	3	2	2	1	2	2		14	7.5	9	2
13	4	2	4	5	3	4	5		14	7.5	9	3
14	5	1	5	2	1	1	5		14	7.5	9	2
15	5	3	4	4	1	1	3		14	7.5	9	3
16	4	3	1	2	3	4	5		10.5	7.5	6	2
17	5	1	4	3	1	5	1		7	7.5	6	3
18	1	3	1	2	5	4	5		17.5	12.5	12	3
19									Check Data	Check Data	Check Data	Check Data
20									Check Data	Check Data	Check Data	Check Data
21									Check Data	Check Data	Check Data	Check Data

FIG. 7

	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH
1											
2											
3											
4											
5											
6											
7											
8					Totals:				Totals:		
9					45	237	0		1	6	0
10	MIGRATION ASSESSMENT				FTE Distribution				Application Distribution		
11	Tool Results/ Recommendation	Application Assessment Score	Documentation Score	IBM Team Model Assessment/Override (Onsite, Mixed, Remote, N/A)	Onsite FTE	Onsite/ remote FTE	Remote FTE		Onsite Apps	Onsite/ remote Apps	Remote Apps
12	Onsite/Remote	32.5	27	N/A	0	55	0		0	1	0
13	Onsite/Remote	33.5	36.5	N/A	0	27	0		0	1	0
14	Onsite/Remote	32.5	28.5	N/A	0	77	0		0	1	0
15	Onsite/Remote	33.5	29.5	N/A	0	33	0		0	1	0
16	Onsite/Remote	26	33.5	N/A	0	30	0		0	1	0
17	Onsite/Remote	23.5	30	N/A	0	15	0		0	1	0
18	CriticalApp & Unstable	45	30	N/A	45	0	0		1	0	0
19	Onsite	Check Data	Check Data	N/A	0	0	0		0	0	0
20	Onsite	Check Data	Check Data	N/A	0	0	0		0	0	0
21	Onsite	Check Data	Check Data	N/A	0	0	0		0	0	0

FIG. 8

Cell	Formula
AD12	=SUM(U12:AC12)
AI12	=SUM(AF12:AH12)
AS12	=+IF(AND(AN12>=1,AN12<=5,AO12>=1,AO12<=5,AP12>=1,AP12<=5, AQ12>=1,AQ12<=5,AR12>=1,AR12<=5),SUM(AN12:AR12) ,"Check Data")
AT12	=IF(AS12=0,"Check Data",IF(AS12<6,1,IF(AS12<11,2(IF(AS12<16,3, IF(AS12<21,4, IF(AS12<25,"Check Data",5))))))
BC12	=IF(AV12<=0,1,IF(AV12>=Controls!$B$10,LOOKUP(AV12, Concurrent_Users,User_Score),1))
BD12	=IF(AW12<=0,1,IF(AW12>=Controls!$B$3,LOOKUP(AW12,Codelines, Codelines_Score),1))
BE12	=IF(AX12<=0,1,IF(AX12>=Controls!$B$17,LOOKUP(AX12,Sev_1, Sev_1_Score),1))
BF12	=IF(AY12<=0,1,IF(AY12>=Controls!$B$24,LOOKUP(AY12,Sev_2, Sev_2_Score),1))
BG12	=IF(AZ12<=0,1,IF(AZ12>=Controls!$B$31,LOOKUP(AZ12, Maj_Minor_Rels,Maj_Minor_Rels_Score),1))
BH12	=+IF(AND(BB12>=1,BB12<=5,BC12>=1,BC12<=5,BD12>=1,BD12<=5, BE12>=1,BE12<=5,BF12>=1,BF12<=5,BG12>=1,BG12<=5), SUM(BB12:BG12) ,"Check Data")
BI12	=IF(BH12=0,"Check Data", IF(BH12<7,1,IF(BH12<13,2,IF(BH12<19,3, IF(BH12<25,4,IF(BH12<30,"Check Data", 5))))))

FIG. 9

Cell	Formula
BS12	=+IF(AND(AK12>=1,AK12<=5),(+$BS$9*AK12)*10,"Check Data")
BT12	=+IF(AND(AL12>=1,AL12<=5),(+$BT$9*AL12)*10,"Check Data")
BU12	=+IF(AND(AT12>=1,AT12<=5),(+$BU$9*AT12)*10,"Check Data")
BV12	=+IF(AND(BI12>=1,BI12<=5),(+$BV$9*BI12)*10,"Check Data")
BX12	=IF(OR(CA12="Onsite",CA12="Mixed",CA12="Remote"), "See Override",IF(AND(S12>=1,S12<=$S$9),"Sunet",IF(AK12=5=AND (AR12<4)=AND(Z12<$2$9),"Critical-Stable-Low Facing",IF (AND(AK12=5,AR12>3),"CriticalApp & Unstable",IF(Z12>=$Z$9, "High Facing",IF(BY12>40,"Onsite",IF(BY12<=10,"Remote", IF(BY12>=11,"Onsite/Remote","Check Data"))))))))
BY12	=+IF(AND(SUM(BS12:BV12)>=10,SUM(BS12:BV12)<=50), SUM(BS12:BV12),"Check Data")
BZ12	=+IF(AND(BK12>=1,BK12<=5,BL12>=1,BL12<=5,BM12>=1,BM12<=5, BN12>=1,BN12<=5,BO12>=1,BO12<=5,BP12>=1,BP12<=5,BQ12>=1, BQ12<=5),((($BK$9*BK12)+($BL$9*BL12)+($BN$9*BN12)+ ($BO$9*BO12)+($BP$9*BP12)+($BQ$9*BQ12))*10),"Check Data")
CB12	=IF(SUM(CG12:CH12)=0,AI12,0)
CC12	=+IF(OR(CA12="Mixed",BX12="Critical-Stable-Low Facing", BX12="Onsite/Remote"), AI12,0)
CD12	=+IF(CA12="Remote",AI12,IF(BX12="Remote",1,0))
CF12	=+IF(SUM(CG12:CH12)=0,1,0)
CG12	=IF(OR(CA12="Mixed",BX12="Critical-Stable-Low Facing", BX12="Onsite/Remote"), 1,0)
CH12	=+IF(CA12="Remote",1,IF(BX12="Remote",1,0))

FIG. 10

Business Area	Application Count	Application Assessment Score (average)	Documentation Score (average)	Total FTEs
Logistics	2	24.75	31.75	45
Finance	2	33	31.75	82
HR	2	33	29	110
Payroll	1	45	30	45
Total	7	32.36	30.71	282

FIG. 11

Busin ss Area	Partition #	Duration Months	Application Count	Application Assessment Score (average)	Documentation Score (average)	Total FTEs	Onshore Percent	Offshore Percent	Onshore FTEs	Offshore FTEs
Migrat d Applications										
Logistics	1	3	2	24.75	31.75	45	20%	80%	9	36
Finance	2	4	2	33	31.75	82	20%	80%	16.4	65.6
HR	3	5	2	33	29	110	20%	80%	22	88
Subtotal			**6**			**237**			**47.4**	**189.6**
N n-migrated Applications (Onshore model or BAU)										
Payroll			1	45	30	45	N/A	N/A	N/A	N/A
Grand Total			**7**			**282**				

FIG. 12

Business Area	Partition #	Number of Applications in Partition	Application Assessment Score (average)	Documentation Score (average)	Total FTEs in Partition	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9
Overall Migration Planning														
Logistics	1	2	24.75	31.75	45		PLAN	KT	PARALLEL	SS				
Finance	2	2	33	31.75	82			PLAN	KT		PARALLEL	SS		
HR	3	2	33	29	110				PLAN	KT			PARALLEL	SS
Total		6	32.36	30.71	237									

FIG. 13

FIG. 14

Application Assessment Factor	Weighting	Description
Business criticality	35%	A measure of the application's capability to cause financial, legal, regulatory, or relationship damage through non-availability. An additional measure is the impact to delivery of products or services.
Operational criticality	25%	
Application complexity	30%	A measure of the code, data, problem complexity
Application profile	10%	A measure of the number of users and interfaces impacted due to non-availability of an application.
Other Factors	0%	General measures not included above that are key in evaluating an application.

FIG. 15

Delivery Model 6	Offshore	Onshore-Offshore			Onshore
Application Assessment Score ⇒	1-9	10-20	21-35	36-45	46-50
Suitability For Model ⇒	Most likely	Very good	Good	Likely	More likely
Expected % of Applications ⇒	< 5%	65 to 70%			30%

FIG. 16

AS	AT
>25	error
21-25	5
16-20	4
11-15	3
6-10	2
1-5	1

FIG. 17

BH	BI
>30	error
25-30	5
19-24	4
13-18	3
7-12	2
1-6	1

FIG. 18

Documentation Factor	Weighting	Description
Functional Design Manual	25%	Documents the functionality of the application (i.e., the functional tasks that the software is designed to perform)
Detail Design Manual	15%	Documents the software design for the application (i.e., flow charts, basic assumptions, equations, etc.)
Int/Reg Test Plans	10%	Documents procedures for debugging the software and standard test cases to be run for software verification
User Manuals	5%	Documents how to use the software (i.e., how to run the application; required inuts and their format, etc.)
Installation Guide	20%	Documents how to install the application on the user's computer system
Data Dictionary	15%	Documents data ranges for variables of interest (e.g., input variables, output variables, internally computed variables, etc.)
Training Manuals	10%	Documents procedures for training users

FIG. 19

Documentation Score ⇒	1-9	10-20	21-30	31-40	41-50
Availability of the Documentation ⇒	Limited availability	Mostly available	Fairly available	Available	Very available

FIG. 20

Onshore/Offshore %	Guidelines
20/80	• Applications seeking low level of facing time • Stable applications • Sufficient FTE mass to support model • Low level of interfaces • Contains higher ratio of retained staff • Low business criticality and service levels
30/70	• Applications requiring greater levels of facing time (i.e., consultation, vendor supported applications, manageable level of real-time support functions) • Less stable applications • Sufficient FTE mass to support model • Medium level of interfaces • Low, medium, and high business criticality applications with proven history of stability
>30/balance offshore	• Applications requiring a higher level of facing time (i.e., functional consulting, early development phases, volatile applications, or real-time support needs) • Package build and implement (on-going support can be more aggressive) • Insufficient FTE mass to support model and cannot be logically grouped • High level of interfaces • High business criticality and service levels with proven history of stability

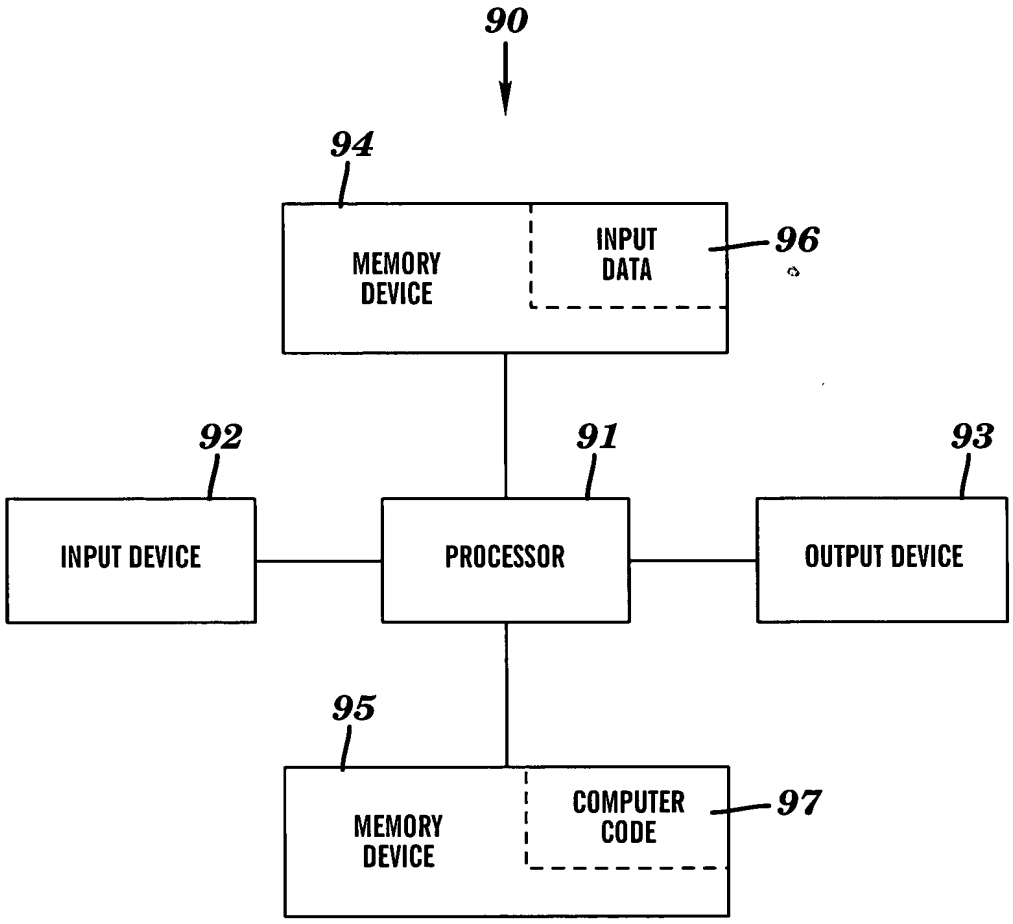

90
94
MEMORY DEVICE
INPUT DATA
96
92
91
93
INPUT DEVICE
PROCESSOR
OUTPUT DEVICE
95
MEMORY DEVICE
COMPUTER CODE
97

FIG. 21

	A B		C
1	***Description***	***Lines of Code or Modules***	***Score***
2	Thresholds for Application Size - Lines of Code or Function Points		
3	Small size application if up to -	500	1
4	Medium Small size application if up to -	5000	2
5	Medium size application if up to -	10000	3
6	Medium Large size application if up to -	50000	4
7	Large size application if up	1000000	5
8			
9	***Thresholds for Concurrent User Number***	***Concurrent Users***	***Score***
10	Small size application if up to -	10	1
11	Medium Small size application if up to -	25	2
12	Medium size application if up to -	50	3
13	Medium Large size application if up to -	100	4
14	Large size application if up	300	5
15			
16	***Thresholds for Incidents or Fault Reports Severity 1***	***Sev 1***	***Score***
17	Small size application if up to -	10	1
18	Medium Small size application if up to -	25	2
19	Medium size application if up to -	50	3
20	Medium Large size application if up to -	100	4
21	Large size application if up	300	5
22			
23	***Thresholds for Incidents or Fault Reports Severity 2***	***Sev 2***	***Score***
24	Small size application if up to -	20	1
25	Medium Small size application if up to -	50	2
26	Medium size application if up to -	100	3
27	Medium Large size application if up to -	200	4
28	Large size application if up	600	5
29			
30	***Thresholds for Major/Minor Releases***	***Maj/Minor Rels***	***Score***
31	Small size application if up to -	20	1
32	Medium Small size application if up to -	40	2
33	Medium size application if up to -	60	3
34	Medium Large size application if up to -	80	4
35	Large size application if up	100	5

FIG. 22

	A	B	C
1	The Fields and Values		
2	*Worksheet Section/Field*	*Description*	*Guidance/Examples*
3	BUSINESS		
4	Business Area	Business Unit	Accounting, Logistics
5	Business Function	Department name or application team	AR, AP, Shipping
6	APPLICATIONS		
7	Application ID	Count / line number	Automatically created
8	Application Name	Name of application	
9	Application Description	Description of application	
10			
11	APPLICATION ARCHITECTURE		
12	Hardware	Hardware profile	IBM RS6000, MVS, Sun
13	Operating System	Operating systems	Linux, Windows 2000, OS/2
14	Database	Database software used	DB2, Oracle, Sybase
15	Language	Programming languages used	COBOL, Visual Basic, C++
16	Package Flag	Package Identifier	Y or N
17	Package Vendor	Vendor Name	
18	Age of Application	How old – in years – is the application	Number
19	Blank Custom 1 to 4	Customizable fields (account specific)	
20	Life Expectancy	End of life (in months) from assessment date.	Number

FIG. 23A

	A	B	C
21	FTE ANALYSIS		
22	% of FTE Doing Break/Fix	Break/fix maintenance required to keep the application running and all associated tasks.	Percentage
23	% of FTE Doing Enhancements	Minor code changes required to provide operational and business continuity or changes that allow new functionality. Usually less than 2 months duration.	Percentage
24	% of FTE Doing Ad hoc Support	Ad hoc reporting or activities	Percentage
25	% of FTE Doing Testing	All testing, environmental builds, test case tracking, and/or data prep.	Percentage
26	% of FTE Doing Rollout	Production installation or stabilization	Percentage
27	% of FTE Doing Customer Facing	Time spent with client/users of system	Percentage
28	% of FTE Doing Project Mgmt.	Planning, monitoring, executing, and controlling functions.	Percentage
29	% of FTE Doing Development	Major code changes. Typically investment funding is required.	Percentage
30	% of Other Activities	Other activities like Business Analyst, Architect, DBA Functions (physical/logical), Training	
31	Total of %'s	Total of all percentages	Automatically summed
32	Location	Resource location	
33	Team size with over 6 years Exp.	Team Experience	Number
34	Team size with 3 to 6 years Exp.	Team Experience	Number
35	Team size with 0 to less than 3 years Exp.	Team Experience	Number
36	Total FTEs	Total FTES for all experience levels	Automatically summed

FIG. 23B

	A	B	C
37	CRITICALITY		
38	Business Criticality	Business criticality of system	5 = Statutory - required for regulatory purposes orCritical - business (enterprise) stops if system stops 4 = High Importance - division stops if system stops 3 = Important - creates some business disruption or inconvenience, but operations continue 2 = Lower impact: system creates inconvenience, but workarounds possible 1= No impact
39	Operational Criticality	Impact to interfacing systems (internal/external) or operational support	5 = Critical to Operations / Major Impact to interfacing systems 4= High Importance but workaround exist for the short-term 3= Important - creates slight business disruption or inconvenience, but operations continue 2 = Lower impact 1= No impact

FIG. 23C

	A	B	C
40	Complexity		Used for all: 5 -High complexity 4 -Medium-high 3 - Medium 2 -Medium-Low 1 -Low complexity
41	Code Complexity	Logic and Code complexity. assessment as determined by non-structured, complex logic, recursive calls, or highly advanced programming techniques in example	
42	Data Complexity	Data and data relationship complexity (i.e., complex joins, nested SQLs, dynamic builds, etc.)	
43	Business Complexity	Assessment of the Business rules/knowledge complexity, as required by the IT support team	
44	Problem Complexity	Assessment of the level of complexity of the problems encountered by the IT team to-date.	
45	Stability	Stability of the application	5 - Highly unstable (outages occur daily) 3 - Mostly Stable (outages occur weekly) 1 -Very Stable (outages occur monthly, quarterly, or yearly)

FIG. 23D

	A	B	C
46	APPLICATION PROFILE		
47	Concurrent Users	Number of concurrent users	
48	LOC or Modules	Lines of code or count of modules	
49	Sev 1 Reports	Average number of monthly Sev 1 reports. Normally defined as system is down with major business impact	
50	Sev 2 Reports	Average number of monthly Sev 2 reports. Normally defined as system down but workaround exist or minor business impact.	
51	Major/Minor Releases	Average number of monthly releases/changes.	
52	Major/Minor Release Effort FTEs/Hours	Average monthly effort in hours or FTEs involved with each release/change.	
53	Level of Customization	Level of customization. An evaluation of intrusive code changes, screen, reports, and boltons.	5 - Highly customized 4 - Boltons and some customization 3 - Medium customized 2 - Low customization 1 - no customization
54			

FIG. 23E

	A	B	C
55	DOCUMENTATION		Used for all: 5 - Not available 4 - Mostly not available and not current 3 - Fairly available 2 - Available but over 1 year old 1 - Very available and current
56	Functional Designs	Defines high level functions of application	
57	Detail Designs	Defines in detail the logic of the application	
58	Int/Reg Test Plans	Test plans, cases, and expected results	
59	User Manuals	User manuals for customers of the system	
60	Installation Manuals	Technical manual on installing the system	
61	Data Dictionary	Data repository	
62	Training Manuals	Technical training materials	
63			
64	MIGRATION ASSESSMENT		
65	Tool Results/Recommendation	Tool's quantitative assessment of the application and the appropriate action	
66	Application Assessment Score	A quantitative measure of the application's suitability for offshore/nearshore support.	
67	Documentation Score	A quantitative measure of the application's documentation availability and currency.	
68	IBM Team Model Assessment, Override	Subjective assessment of the application support strategy	

FIG. 23F